



BANCROFT LIBRARY

THE LIBRARY
OF
THE UNIVERSITY
OF CALIFORNIA

"Company,

HISTORY

OF THE

UNION PACIFIC RAILROAD



ISSUED BY THE UNION PACIFIC RAIL-ROAD ON THE OCCASION OF THE CELEBRATION AT OGDEN, UTAH, MAY 10TH, 1919, IN COMMEMORATION OF THE 50TH ANNIVERSARY OF THE DRIVING OF THE GOLDEN SPIKE

INTRODUCTORY

HISTORY OF THE UNION PACIFIC RAILROAD



HE purpose of this paper is to review briefly the history of the Union Pacific Railroad. The narrative has been confined to the simplest recital of events, and dates surrounding them, with passing mention of a few prominent characters.

Limitation of space has made it necessary to exclude from these pages deserved mention of many thrilling events of early frontier experiences, giving only such retrospection as will quickly recall the circumstances prompting the promotion of the Pacific railways; dealing as impressionably as we are able with the construction, completion and opening of the line for business.

It is, therefore, not a treatise but a paper, not a polar, solar glare, but a flash-light, not a bridge, but the first stepping-stone; more concise than complete, more prosaic than scintillating, more of the why than the what;—it is not the sum but the substance of what should first be known.

In its preparation, we have been taken directly and appreciably to the source of historic truths by reference to the research of others who have written carefully and interestingly on this subject, and have been helped by privileged access to the private papers and bound volumes that have been preserved and published, for which grateful acknowledgment is hereby made.

BANCROFT LIBRARY

HISTORY OF THE UNION PACIFIC

THE "Louisiana Purchase" of 1803 seems to have been the first awakening of the people of that day to the importance of the great Trans-Mississippi country. An investment of fifteen million dollars (the price paid the French Government), had brought them to a feeling of direct personal interest in this vast, unexplored territory.

Under the encouragement of President Jefferson, and the authority of Congress, the Lewis & Clark Expedition was authorized and made ready in the spring of 1804. The alluring reports made on their return, two years later, prompted public men, press-writers and adventurers to further exploitation of this "frontier."

Very soon the cupidity of men in commercial life-always responsive—was touched; John Jacob Astor associated with Wilson Price Hunt and Donald McKenzie in a fur-trading expedition, called the "Pacific Fur Company." This Astor party left Montreal on July 15, 1810, proceeding up the Ottawa River, via Lake Huron, to Mackinaw, where Ramsey Crooks, the future president of the American Fur Trading Company, joined them. Their route took them to Green Bay, down the Fox River and across to the Wisconsin, down t, via Prairie du Chien and the Mississippi River, to St. Louis, where they were joined by Robert McClellan, a business partner of Crooks', and by John Their party of about sixty people, then complete, moved up the Missouri River to "The Land of the Dakotas"; thence westward overland to a tidewater terminal called Astoria, founded by Duncan McDougal, on April 12, 1811.

McDougal had sailed from New York with Captain Jonathan Thorne, commander of the "unfortunate Tonquin," on September 8, 1810. After a voyage of more than twelve thousand miles around Cape Horn, they arrived at the mouth of the Columbia River nine months ahead of the McKenzie branch of the overland party, which did not reach Astoria until January 18, 1812; Hunt and his division, on February 15, 1812; the belated party of John Day and Ramsey Crooks brought up the rear on May 11, 1812, after a bitter experience, privation, suffering and banditti abuse.

While a band of French Canadians had, during the closing years of the eighteenth century, preceded westward as far as the foot hills of the Rockies, the assertion is still safe, we think, that these returning "Astors" made the first careful observations of the Platte Valley Route

4UERBACH COLL

during the spring of 1813, having traversed the Platte River district from eastern Wyoming through to Plattsmouth, on the Missouri River.

After the Astors came Alexander Henry: then Major Long, with his "scientists," who left Kanesville (Council Bluffs), in June, 1820, and pushed through to the mountains. Comes now Captain Bonneville, rescued from the "wide-spread insatiable may of oblivion" by the facile pen of one of our country's greatest historians. Washington Irving, who was resourceful enough to build up a volume concerning this profitless and unimportant expedition, dealing with it more generously and ingeniously than will be ever attempted again,† for Bonneville's trip was fifteen years too late to discover anything new or particularly interesting about the Rocky Mountain region. Long since, the country had been conquered and occupied by the Pacific Fur Company, the American Fur Company and the Missouri, Rocky Mountain and Hudson Bay Fur Companies, who had established themselves advantageously over its richest fur furnishing fields: they penetrated to the Salt Lake Valley, and in 1826. Iedediah S. Smith, prominent in the western affairs of the Rocky Mountain Fur Company of St. Louis, had already connected the "Oregon Trail" with the Salt Lake Route via the Colorado River, across the Mojave Desert to the lower coast, and later, with a more direct route to San Francisco across the Sierra Nevada Mountains. Then came America's most observing pathfinder, John C. Fremont, in 1842. All of these attracted the country's further attention to the Central Railway route, the national highway which serves the present and commemorates the past.

The hardships, dangers and distances of these expeditions reminded the people of the East again of the remoteness of their new purchase, the circuitousness of inland waterways, and turned their thoughts to some sort of transcontinental transportation.

Travelers and traders of the earlier years of the old century had been in search of an easier pass through the mountain region, somewhere south of the Lewis & Clark trail of 1804-5. Andrew Henry and William H. Ashley, founders of the Rocky Mountain Fur Company, at St. Louis, were the first to carry their fur trading operations to the Pacific Coast.

To William H. Ashley and his lieutenant, Entienne Provost, stands unmistakably the credit of the discovery of a southern pass, later known as the "South Pass," in the fall and winter of 1823-4, while exploring along the Sweetwater Trail. It opened the Continental Divide, near the source of the Sweetwater River in Fremont County, western Wyoming; it marked the opening of, and made permanent, the mountain crossing

[†]Why Washington Irving should have paused so long at this Bonneville shrine is beyond the discernment of his present-day readers.

route of the famous. "Oregon Trail." It has been to the Rocky Mountain country all that the Cumberland Gap ever meant to the people east of the Alleghenies.

So much for the South Pass Route, which attracted the locating parties of the Union Pacific Railroad Company in later years.

With the Oregon controversy over, and its boundary dispute with Canada settled, the acquisition of California from Mexico, in 1848, the Mormon settlement of Utah, and the discovery of gold on the Western Coast, the demand for quicker communication than then possible, around the Horn, across the Isthmus, by overland freighting, staging or pony-express, was intensified, and Congress was urged to greater activity.

As far back in our history as 1819, Robert Mills, of Virginia, is found pressing the necessity of a cross-country railway to the attention of the people of that day, and later to Congress. He suggested the use, if practicable, of land-steamers, or "steam propelled carriages for quickened service across the continent, to run from the head-waters of inland navigation westward over a direct route to the Pacific."

This, please note, was eight years before the successful application of steam power to carrying-use anywhere in this country.

Then followed what was known as the "Western Movement," toward the "Back-lands," or the "Indian Country," narrowed down now to an area of less than sixty-five thousand square miles, or to the Indian Territory of today; all this, too, within a brief period of eighty years, or less, under the civilizing influences of rapid transportation and communication.

One promoter's proposition after another followed and failed. While citizens John Plumbe, of Dubuque, Iowa, Asa Whitney, a merchant of New York, the Honorable Butler S. King, General Robinson, of Pennsylvania, Hosmer, of Ohio, Pierce, of Indiana, Thomas H. Benton, and others had pioneered in this project for a Pacific railway, the consistent and persistent pursuit of such men as Senators Salmon P. Chase, and Wade, of Ohio, Gwin, McDougal and Latham, of California, Harlan, of Iowa, Lyman Trumbull and Stephen A. Douglas, of Illinois, and many others, prominent in the councils of both the Senate and Lower House, working together, brought this splendid enterprise to a point of Government initiative.

Congress had been frequently memorialized, but what Stephen A. Douglas had previously done to encourage the building of the Illinois Central Railway, seemingly, prepared the public mind for the provisional measures to follow and served as a solvent of difficulties, many and

multiform, to be met with in promoting the necessary land and bondaiding measures of succeeding years.

Trans-Missouri tribes were being rapidly dispossessed, displaced, and replaced on reservations; Indian wars among the tribes and with the whites were nearing an end; the public domain was fast falling under private control and cultivation; the arid, inhospitable, desert reclaimed under an easy arrangement of purchase—the "West" had become a relative term, and the whole country was restive over its inaccessibleness.

The initial step in the direction of Pacific railway building was the success of a bill submitted to Congress in 1853, by Senator Salmon P. Chase, of Ohio, providing for a survey of four routes to the Pacific Coast, then under serious consideration:

First: A line from the Upper Mississippi to Puget Sound—Major Stevens in charge of the survey.

Second: A line along the 36th parallel, through Walker's Pass of the Rocky Mountains, to strike the Coast at San Diego, Los Angeles or San Pedro—under direction of Lieutenant Whipple.

Third: A line through the Rocky Mountains near the headwaters of the Rio del Norte and Hueferno River, emerging at Great Salt Lake Basin—Captain Gunnison in charge.

Fourth: A line along the 32d parallel, via El Paso and the Colorado River, to strike the Pacific somewhere in lower California.

Jefferson Davis, then Secretary of War, evidently on his own motion, sent five other engineering corps into this field; their reconnaissance to cover, first, the "Northern Route" of the 47th to the 49th parallel, north latitude; the second, an "Overland Route," between parallels 41 and 42—also known as the "Central" or "Mormon Route." The third was along the 39th parallel, called the "Buffalo Trail." The fourth was along the route of the 35th parallel, and the fifth, along the 32d parallel, or the "Southern Route."

Secretary Davis made a complete report to Congress of all this exploitation under date of January 27, 1855.

This brings us to the bill Stephen A. Douglas proposed and promoted in the 34th Congress in January, 1855; sustaining it he said, among other good things, "If we intend to extend our commerce, if we intend to make the great ports of the World tributary to our worth ****** we must penetrate to the Pacific."

The Douglas Bill proposed three routes to the Coast, one via El Paso and the Colorado River, to be called "The Southern Pacific;" another from the Iowa border to be called the "Central Pacific;" another to the north to be called the "Northern Pacific."

It is well worthy of note that the terms he used, descriptive of these three routes, endure and stand today as titles for the three trunk lines finally built.

Subsequent surveys were to determine the most acceptable route of the three suggested.

His measure found the approval of a joint committee of both houses, succeeded in the Senate, but failed of passage in the House.

The distinguishing feature of the Douglas plan was that it not only proposed, but liberally provided for what was to be undertaken.

The years between 1850 and 1860 "marked a period of storm and stress in which sectionalism and localism were engaged in drawing and quartering Pacific railway measures." †

The accomplishment of a transcontinental railway, however, seemed predestined to await the emergencies of civil war, which soon came.

The ordinance of secession, done at Charleston, South Carolina, on December 20, 1860 and the retirement of its several sister states that quickly followed, silenced further sectional opposition.

Congress, then freer to act, and supported by declarations of all party platforms favoring transportation development in the West, was brought to a serious consideration of the Enabling Act, remembered as House Roll 364—a blend of all the better features of bills proposed by Senators Stephen A. Douglas and Washburn of Illinois, Congressman Samuel R. Curtis of Iowa, Rollins of New Hampshire, and others. "364" passed the United States Senate, as amended, on June 20, 1862, Senate's amendments concurred in by the House on June 25th, and became a law over the signature of President Lincoln on July 1, 1862. (Congressional Globe says July 2, 1862.)

This act created the "Union Pacific Railroad Company," which corporation was "authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph, with the appurtenances, from a point on the 100th meridian of longitude west from Greenwich, between the south margin of the valley of the Republican River and the north margin of the valley of the Platte River, in the Territory of Nebraska, to the western boundary of Nevada

[†]Davis on "Union Pacific Railway."

Territory; * * *" and "granted 400 feet of right of way through public lands, also every alternate or odd numbered section of land to the amount of five alternate sections per mile on each side of the line within the limit of 10 miles, not sold or otherwise disposed of by the United States. * * * * Mineral lands excepted. * * *" It was also by this Bill bond-aided at the rate of \$16,000 per mile, east of the mountains, pay-These bonds were a first mortgage lien on the property. It was further provided "that for 300 miles of road most mountainous and difficult of construction, to-wit: one hundred and fifty miles westwardly from the eastern base of the Rocky Mountains and one hundred and fifty miles eastwardly from the western base of the Sierra Nevada Mountains, said points to be fixed by the President of the United States, the bonds to be issued to aid in the construction thereof shall be treble the number per mile hereinbefore provided, and the same shall be issued and the lands herein granted be set apart upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid, that twenty consecutive miles of the same are completed; and between the sections last named of 150 miles each the bonds to be issued to aid in the construction thereof shall be double the number per mile first mentioned. * * * * *: Provided that no more than 50,000 of said bonds shall be issued under this act to aid in constructing the main line of said road and telegraph."

Section 12: "And be it further enacted, that whenever the route of said railroad shall cross the boundary of any State or Territory, or said meridian of longitude, the two companies (Central Pacific-Union Pacific) meeting or uniting there, shall agree upon its location at that point, with reference to the most direct and practicable through route, and in the case of difference between them as to said location, the President of the United States shall determine the said location."

"The track upon the entire line of railroad and branches shall be of uniform width, TO BE DETERMINED BY THE PRESIDENT OF THE UNITED STATES, SO THAT, WHEN COMPLETED, CARS CAN BE RUN FROM THE MISSOURI RIVER TO THE PACIFIC COAST; THE GRADES AND CURVES SHALL NOT EXCEED THE MAXIMUM GRADE AND CURVES OF THE BALTIMORE & OHIO RAILROAD; the whole line of said railroad and branches and telegraph shall be operated and used for all purposes of communication, travel, and transportation, so far as the public and government are concerned, as one connected, continuous line; and the companies herein named in Missouri, Kansas and California, filing their assent to the provisions of this act, shall receive and transport all iron rails, chairs, spikes, ties, timber and all materials required for constructing and furnishing said first-mentioned line between the aforesaid

point, on the 100th meridian of longitude and western boundary of Nevada Territory, whenever the same is required by said first-named company, at cost, over that portion of the roads of said companies constructed under the provisions of this act."

And under the terms of Section 13 of the same act, the Hannibal & St. Joseph Railroad Company of Missouri was invited to extend its road from St. Joseph, via Atchison, to connect and unite with the road through Kansas, upon the same terms and conditions in all respects, and authorized under these terms to build 100 miles in length beyond the Missouri River.

The same authority was given the then existent "Leavenworth, Pawnee & Western Railroad Company of Kansas."

"And whenever there shall be a line of railroad completed through Minnesota or Iowa to Sioux City, then the said Pacific Railroad Company is hereby authorized and required to construct a railroad and telegraph from said Sioux City upon the most direct and practicable route to a point on, and so as to connect with, the branch railroad and telegraph in this section hereinbefore mentioned, or with said Railroad Company, said point of junction to be fixed by the President of the United States not farther west than the 100th meridian of longitude aforesaid, and on the same terms and conditions as provided in this act for the construction of the Union Pacific Railroad and to complete the same at the rate of 100 miles per year."

Like encouragement and aid having been given the Central Pacific Railroad by this act, it was required "that if said roads are not completed so as to form a continuous line of railroad ready for use from the Missouri River to the navigable waters of the Sacramento River, in California, by the first day of July, 1876, the whole of said railroad before mentioned, and to be constructed under provisions of this act, together with all their furniture, fixtures, rolling stock, machine shops, lands, tenements, and hereditaments, and property of every kind and character, shall be forfeited to, and be taken possession of, by the United States."

The reasons prompting Congress to designate definitely some eastern limit of connection between their Union Pacific creation and other lines are obvious. Just why the 100th meridian was selected, however, does not appear, but to protect their Union Pacific investment and give it the longest possible haul on coast business and still leave a proper radiating distance between the Missouri River and a meridian limit where lines then approaching the Missouri River from the East might connect, they in their wisdom fixed upon the 100th meridian, considering, evidently, that this was far enough west to permit of such convenient connection later on, after widening the area of approach from the Republican to the Platte River Valley.

Under the requirements of this enactment of 1862, which has been reviewed in part in preceding paragraphs, the directors of the Union Pacific Company qualified and formally accepted its terms on June 27, 1863.

On the second day of December following, ground was broken in North Omaha bottoms with fitting ceremony.

Present on that occasion were Governor Alvin Saunders, Mayors B. E. B. Kennedy, of Omaha, and Palmer, of Council Bluffs, Judge Larimer, Andrew J. Poppleton, Augustus Kountze, George B. Lake, Edward Creighton, John I. Redick, Experience Esterbrook, J. J. Brown, George Francis Train and others, A. J. Hanscom presiding.

Telegrams of felicitation were exchanged on this occasion between this Omaha committee of arrangement and Mayor George Opdyke of New York City, as follows:

"May this, the greatest work ever projected in any age or country, prove a lasting bond of political and commercial union between the Atlantic and Pacific States."

Another telegram from John Hay, Private Secretary to President Lincoln, viz:

"I have not been permitted until today to present to the President your communication of the 23rd of November. He directs me to express his deep regrets that his illness will prevent him from giving expression to the profound interest he feels in the success of a work so yast and beneficial as that which you are about to inaugurate."

Telegrams from Brigham Young, Governor Stanford of California, Governor Yates of Illinois, from the Mayor of Denver and others, contributed to the joy of the occasion.

Brigham Young, then beginning to be imperator of a great industrial people, sent this message:

"Let the hands of the honest be united to aid the great national improvement."

He gave his full share of aid in construction through the brawn of his followers, until he saw that the company was bent on giving his city the go-by, and then at the critical point in the great race, he withheld his aid until he saw that the Central Pacific, too, intended to reject his suit, and he must be content with a stub connection from Ogden.

In the meantime, the Pacific Telegraph Company had been chartered by special act of Congress in 1861, and subsidized to the amount of \$40,000 per annum. Mr. Edward Creighton, of Omaha, was its chief promoter and builder, having had charge of the construction work of the telegraph line for Western Union interests from St. Louis to Omaha, then recently completed. He seemed the best fitted of any man in the West for this further undertaking. The Pacific Telegraph Company blazed the way across the plains, and finished their line into Salt Lake City with surprising promptness on June 28, 1862.

During the years 1853 to 1860, Henry C. Farnam, Dr. Thomas C. Durant, with Grenville M. Dodge, and Peter A. Dey in charge, were building the Mississippi & Missouri Railroad (later the Chicago, Rock Island & Pacific Railway), across the State of Iowa to the Missouri River. Under the inspiration of the agitation and assurance of coming Government aid for a Pacific railway, Mr. Dey was detached from his Iowa field work and sent by Farnam over the proposed "Central" route for reconnaissance and report of the conditions along the Platte Valley route; the "Imperial Parallel" of 41½ degrees, which later surveys sustained as the nation's natural highway, as now used.

The information at hand made Thomas C. Durant the first and best acquainted railroad builder in the country with what was to be undertaken, pending the Government aid, which came, as anticipated, in July 1862.

(NOTE) "In 1862, after the Chicago convention organizing the Union Pacific Railroad Company, I was sent by Henry Farnam to reconnoiter the route from the Missouri River to the Salt Lake Valley—General Dodge had, in 1861, raised a regiment and was continuously in the service of the United States until 1865. In 1862 Thomas C. Durant had not interested himself in the Union Pacific." "The papers covering the examination of the line and the report were turned over to Mr. Durant in the fall of 1863 by Mr. Farnam, as the latter then retired from active railroad construction." (Extract from Mr. Dey's autograph memorandum.)

These war-troubled days were fast absorbing the resources of the people; capital under private reserve was timid; the Government's appropriation of alternate sections of public land through a ten mile strip each side of the proposed line and its gift of gold-bearing bonds of sixteen thousand, thirty-two thousand and forty-eight thousand dollars per mile—according to location—was found inadequate and unattractive to men in high places of finance; stock subscription books had been opened, but the money for construction expenses was not forthcoming.

The funds for final survey of the line to the junction of the North and South Platte Rivers (near where North Platte city is now located) had been found and contracts for short distances out of Omaha were under negotiation.

One of the original surveys carried the line directly west from Omaha to the Elkhorn River. This cross-country line had been established by Peter A. Dey, engineer in charge; another line had been located around the Mud Creek route, via Papillion, known in those days as the "Ox-Bow Route."

Nebraska's first territorial legislature of 1855 did two distinguishing things deserving of mention, and but two. Its first Act located the Capital of Omaha; the second measure acted upon was a resolution memorializing Congress in behalf of a Pacific railway.

Thomas B. Cumming, acting Territorial Governor, in a message read January 16, 1855, said in part: "As an enterprise of such absolute necessity, as a means of intercommunication between the Atlantic and Pacific States and as a purveyor of a lucrative commerce with India, China and the Pacific Islands; among these are the facts that the Valley of the Platte is on the nearest and most direct continuous line from the commercial metropolis of the East by railroad and the Great Lakes, through the most practical mountain passes to the metropolis of the West; that it is fitted by nature for an easy grade and that it is central and convenient to the great majority of grain-growing states of the Northern portion of the Union, being in latitude 41 degrees north, it seems to me to be the desire of the friends of this great enterprise, one of the most prominent and important of all measures of National development upon the continent now under consideration of the people of the

NOTE: (This manuscript, in the rough, was submitted to Mr. Peter A. Dey on Friday, October 15, 1909, at his home in Iowa City, Iowa, where Mr. Dey was president of the First National Bank. He was considerate enough to read, correct and approve this paper, and we, here and now, make acknowledgment of the great favor he has done in setting us right on many points of doubt and incidents connected with the early surveys and construction of the Pacific railways, which he remembered and reviewed most vividly and interestingly; and we are indebted to him for several autograph statements worthy of place in this record, which we have been glad to give them elsewhere in their proper chronological connection under quotation credit.)

United States * * * * and I sincerely hope and believe that your legislative memorial to Congress may have its legitimate weight in the decision of a question of such momentous interest."

The joint legislative committee to whom this bill was referred said in their report as follows:

"The Valley of the Platte is well known to the West, it being the great highway through which nine-tenths of the overland emigration passes enroute to the Pacific. Those coming via St. Louis travel by water up the Missouri River to Independence, Weston, St. Joseph and Council Bluffs and, uniting at these points with those who come by land from the east, pursue their way westward by converging lines that unite in the Platte Valley at various points within 200 miles, a little north of a due line west from Omaha, Bellevue and Florence * * * * starting from more westerly points on the Missouri River, there is less of land travel than by any other route. There is a better connecting line of good water, wood, stone, coal, soil and grass, than can be found on any other route. This route lies also in the zone of the earth's surface where the greatest variety of useful articles can be produced; where men are capable of the greatest endurance and where the greatest population and wealth are most likely to accumulate."

While other states, political and industrial organizations, had memorialized Congress from time to time, the perfervid pleadings of all Nebraska's Governors, from Cumming to Saunders, for Government help in the construction of a Transcontinental Railway did more than any one other agency, perhaps, to change certain men prominent in the affairs of the nation and enlist them in its cause and, finally, to cement them to the sentiment that the Pacific railway must be built to "Keep our country together." This general agitation brought the people to a correct conclusion that a Pacific railway could not be built with private capital, unaided by the Government; that the Government should give one-half of the funds necessary, as a loan, and would then be merely doing the least part of the whole; that the economics of transportation of Government troops and supplies would be compensatory.

The Honorable Henry Wilson, speaking for a Pacific Railway Bill in the 37th Congress, had said in explaining his vote: "I give no grudging vote in appropriating either money or land; I would give one hundred million dollars to build the road and do it cheerfully and think I had done a great thing for my country. What are seventy-five or a hundred millions in opening a railroad across the Central Regions of this Continent that shall connect the people of the Atlantic and Pacific and bind us together? Nothing! As to the lands, I do not grudge them."

Working along the same lines, quietly but untiringly, were a little coterie of Californians, meeting when they could at the 'Frisco stores of Huntington & Hopkins, Hardware, or at the Crocker Brothers, Dry Goods, or Stanford's Grocery. Under the inspiring genius and monitorial guidance of Theodore D. Judah, they discussed the chimerical scheme—or dream—of a railroad through the mountains to the East.

On the twenty-second day of February, 1863, ground was broken at Sacramento and Central Pacific construction opened, Governor Stanford presiding.

The names of these men: Collis P. Huntington, Mark Hopkins, Charles and Edward B. Crocker, with Cornelius Cole, a San Francisco editor, and Leland Stanford, are of ineffaceable record in Pacific Slope History, men of national note in their day.

The Central Pacific Railway was the vehicle of their fame and fortune. Theodore D. Judah was its chief advocate and later its chief engineer; he led, while most others falteringly followed, and the saddest reflection of all is the unaccountable oblivion into which his name has fallen.

Theodore D. Judah was the composite Durant and Dodge of Central Pacific history. Has it come to this among men, that there can be no industrial fame without fortune and all its attending caprice?

Eighteen hundred and sixty found more than a half million people who had pioneered into the Western States and Territory. Then less than 50 miles of railway had been built west of the Missouri River to serve them, and not to exceed 250 miles of telegraph.

The enormity of the undertaking and its discouragements will be better understood after reminding the reader that the whole route was practically devoid of any construction material except the soil for the grade. Six and a quarter million ties were needed and they must be hewn from trees felled in Michigan and Pennsylvania or throughout the River Valley regions of the South; three hundred and fifty thousand tons of iron rails and their fittings; all bridge and structural supplies must be wagened by bull team from Central Iowa, at a staggering cost and a shipping uncertainty almost intolerable to contractors; gold was at a 50% premium; war time stringency; labor scarce and exacting and a frontier field dangerous from Indian depredations, still no such record for rapid construction has ever been made in the country's history.

Exactly three years, six months and ten days built the road.

Mr. Dey's natural engineering choice was for a route that would bridge the Missouri River at Childs Mills or Bellevue, using the route of the Papillion Valley to the Elkhorn, and avoiding the objectionable grade and cuts through the hills of any line west from Omaha, but President Lincoln had designated the eastern bank of the Missouri River, opposite Omaha, as the terminus. So as between the two routes through this Missouri River gateway, one directly west, and the other via the Ox-Bow, Engineer Dey stood preferentially and unchangeably for the short cut to Elkhorn, on which, grading to the amount of \$100,000 was later done.

Incidentally, the necessity of return to this cross route, or Lane Cut-off of today (opened for business May 15, 1908), is a silent, but substantial, compliment to the wisdom of the original survey, vindicating Mr. Dey, who has lived to see it built.

On the 7th day of March, 1864, President Lincoln made his second and more definite executive order locating the terminus of the Union Pacific Railway, "On the Western boundary of Iowa, east of, and opposite, the east line of Section 10, Township 13, North of Range 13, east of the Sixth principal meridian in the Territory of Nebraska, within the limits of the township in Iowa, opposite the town of Omaha, Nebraska."

The work of further construction is found under suspense, pending further congressional assistance, which came on July 2, 1864. among other things, doubled the land grant and permitted the Union Pacific Railroad Company to issue first mortgage bonds, equal in amount to the bonds the Government had authorized, and relegated the Government bonds to a second lien on the property. It provided further for the condemnation of a two hundred foot right of way, through lands under private ownership or control, and permitted the Leavenworth, Pawnee & Western Railroad Company, then known as the Union Pacific Eastern Division, to proceed and cross the 100th meridian from the mouth of the Kansas River, via Lawrence and Topeka, and continue to a point of connection in the West, and authorized the Central Pacific to extend its line one hundred and fifty miles east of the limit first designated in preceding acts: extending the same land and bond assistance to the Sioux City & Pacific, westward from Sioux City to a connection with the Union Pacific, as had been authorized for other

⁽NOTE): "The difference of opinion between Mr. Dey, Silas Seymour and Jesse S. Williams was this: If Omaha was the initial point of the road, a generally direct course to the Platte Valley was desirable; the maximum grade from the Missouri River to the Summit and from the Summit west to the Papillion were the same. The question was raised, was it correct engineering to increase the length of the road from fourteen to twenty-three miles to avoid two intermediate grades of the same percentage, while it was admitted that under existing conditions it would not be practical to materially decrease either of the four grades. ** * For reasons that were never explained (to Mr. Dey) the policy of making Omaha the initial point was persisted in, although it was developed early in 1863 that a line of low grades could be reached from the vicinity of Bellevue to the Elkhorn Summit, and that the descent into the Platte Valley might, in the not distant future, be made without extraordinary outlay. In the years 1863 and 1864 it was almost impossible on the Missouri River to obtain labor in any line, as a large percentage of able-bodied men were in the army."

(Extract from Mr. Dey's autograph memorandum.)

Union Pacific connections from the East. This act also authorized the bridging of the Missouri River.

This Sioux City & Pacific line was built into Fremont during the fall of 1868; the Union Pacific reached there on the 24th of January, 1866.

The Act of 1862, creating the Union Pacific Company, directed that the Board should meet in Chicago on the first Tuesday of September, 1862, for organization, which was done, and William B. Ogden, of Illinois was chosen its first president. In this connection a chronological list of all the presidents will be interesting to the student.

September, 1862			William B. Ogden
October, 1863			. John A. Dix
June, 1868 .			Oliver Ames
April, 1871 .			Thomas A. Scott
March, 1872 .			Horace F. Clark
July, 1873 .			John Duff
June, 1874 .			. Sidney Dillon
June, 1884 .			. Chas. F. Adams
December, 1890			. Sidney Dillon
May, 1892 .			. S. H. H. Clark
January, 1898			. Horace G. Burt
January, 1904			Edward H. Harriman
October, 1909			Robert S. Lovett
October, 1911.			. A. L. Mohler
July, 1916			E. E. Calvin

A formal organization was perfected at the next meeting of the Board on October 29, 1863, in New York City, when John A. Dix was chosen president; and Dr. Thos. C. Durant vice-president, who threw into this great national enterprise all his constructive genius and his fortune. Dr. Durant's career with the Union Pacific opens and closes as a builder. His work finished, he yielded the "keys," the curtain falls; he turned his back upon the country and the job and never saw them after.

Very little construction work was accomplished until the spring of 1865. Four years of warfare, and preparations for war, had unsettled business interests, and interrupted the agricultural and manufacturing pursuits of the people. The whole South, which had previously been a very responsive source of money supply, was under devastation of war; but now all Northern enterprises, especially this one, had fallen under the strongest sectional prejudice. No building material was available east of the mountains; no native labor east of the Mormon settlements on the West End, and all supplies must come by rail from Des Moines, 140 miles away, or Boonville, the terminus of the Northwestern; or via the slower, uncertain river service, closed in the winter.

War-time prices for everything made all contractors uncertain of their estimates and impaired their credit. Under these disheartening difficulties, Mr. Dey retired from the engineering staff in 1865. This left J. E. House as charge d'affaires. D. H. Ainsworth followed as Engineer in Chief, while Mr. House superintended the building of the shops and completed the survey over the Platte Valley route to the bridging point on the Platte River, which all the engineering skill at the country's command in latter years has not been able to improve upon and in which no changes have been made west of the corrective short-line recently built to a connection at Lane station. Mr. House, who died in July, 1908, lived to see this splendid endorsement of his unchangeable locations west of the Elkhorn River and a greater portion of his line double-tracked.

The time limits fixed by the Government for the completion of the first one hundred miles and the time allowed to reach the 100th meridian were drawing uncomfortably near; time was, therefore, the essence of all further endeavor.

On October 4, 1864, H. M. Hoxie was awarded a contract to build 100 miles west from Omaha; the first forty miles was entrusted to Mr. Peter A. Dey, as engineer. The difficulties attending have been recited. Further discouragements confronting were the indecisions as to the route west from the Summit between Omaha and where South Omaha now stands, or as between the direct route to the Elkhorn River and the Ox-Bow.

In October, 1864, Jesse L. Williams and Colonel Silas Seymour were sent here by New York interests to review the surveys of Mr. Dey and to report upon the most feasible Missouri River crossing. On their return to New York City, they recommended a change from the Omaha crossing, designated by President Lincoln, and that the river be bridged seven miles farther south at Childs Mills, or Bellevue, where the line would intercept the Papillion Creek valley and follow it northwesterly to the Elkhorn River, along a water grade. The Union Pacific management, sustained by confirming reports made by Colonel J. H. Simpson for the Government, were prompted to petition President Andrew Johnson to so modify the "Lincoln Location" as to permit of the use of this more favorable crossing. In this they were successful and presidential approval for the change was given.

This is still remembered by surviving citizens of Omaha as the "Bellevue Scare," which aroused its people to heroic measures of self-protection. Their protests prevailed and the Mud Creek, or Ox-Bow route, was accepted by the management, and Council Bluffs-Omaha as a crossing point.

On May 7, 1866, a joint resolution of Congress extended to June 27, 1866, the time limit of completion of the Leavenworth, Pawnee & Western (Union Pacific Eastern Division) to the 100th meridian.

On July 3, 1866, a congressional act passed, authorizing the Union Pacific Eastern Division to designate a new route in the direction of Denver and to file its maps of same, when lands adjoining its changed right of way would be reserved in same manner as if built to the 100th meridian, northwesterly from Topeka as originally intended under the act of 1862, but provided that no greater amount of land in the aggregate should be appropriated than would have fallen to it under the original survey, and provided further that the "said company shall connect their line of railroad and telegraph with the Union Pacific Railroad, but not at a point more than fifty miles westwardly from a meridian of Denver, Colorado."

This act of July 3rd further authorized the Union Pacific company, with the consent and approval of the Secretary of the Interior, to continue its road from Omaha until it met the Central Pacific, and likewise authorized the Central Pacific Company of California to continue eastward until it met the Union Pacific.

Credit Mobilier

The Credit Mobilier was chartered in Pennsylvania early in 1865. Its mission and its methods, much mistrusted and misunderstood, discredited from the first, it drifted into dangerous political directions and went down in dishonor two years later. This construction insurance company (for such it was in purpose) took over the unfinished work of the H. M. Hoxie contract on March 15, 1865, and carried it to the 100th meridian, two hundred and forty-seven miles from Omaha.

On the capitulation of the Credit Mobilier, Oakes Ames, on August 16, 1867, took over its unfinished undertakings and pushed them with record-breaking rapidity to a completion at Promontory on May 10, 1869, a distance of ten hundred and eighty-six miles, where on that memorable day, in the presence of a distinguished assemblage, representative of both East and West, they met the Central Pacific, which had built six hundred and eighty-nine miles from Sacramento to this point of connection.

It may be interesting to review in better detail the dates of construction progress:

The first rail was laid July 10, 1865, along the bottoms between Cut-off Lake and the grade leading through the hills out of Omaha toward the summit, near where Vinton and 29th Streets would meet today.

On September 22, 1865, 10 miles were completed and in use, with material on hand for a hundred miles more. The equipment on that date consisted of four locomotives, thirty flat cars and five box cars.

On January 26, 1866, the first Government inspection was made by Chairman Colonel J. H. Simpson, Major General Samuel R. Curtis and Major William White. About thirty miles had then been railed.

During 1866 two hundred and sixty miles more were completed, and in 1867 a two hundred and forty mile advance brought the line to the summit of the Rocky Mountains, or Sherman Hill, 8,247 feet high.

In 1868, four hundred and twenty-five miles more were added, and during the first four months of 1869, one hundred and twenty-five miles of new construction took the line to Promontory.

The report of General Grenville M. Dodge, who had been called into Union Pacific service and councils on May 15, 1866, as Chief Engineer, written to the Eastern owners, said: "During the entire construction of the road, a relentless, determined war has been waged all along the line by the tribes of the plains, and no peace found until we had long passed the hostile country and got beyond their reach."

The above statement was made by General Dodge in reviewing the dangers and discouragements of the surveying parties under his charge.

He further said: "Every mile of the gauntlet had to be run within the range of a rifle."

In 1866 began the active, systematic pursuit of final surveys through the mountains.

In a report General Dodge, as Chief Engineer, made to President Oliver Ames, on December 1, 1869, covering the operation of his engineering corps for the years 1868 and '69, he said:

"Was called to New York and instructed to finish locating the line to Green River by June 1st, and to Salt Lake Valley the same fall, and before winter closed in, to develop the country west of Salt Lake."

General Dodge further said in this report:

"I put James A. Evans in charge of the location from Laramie to Green River and Mr. Jacob Blickensderfer, Jr., from Green River to Salt Lake."

Closing this report, General Dodge said: "It is a wonder that Messrs. Evans and Blickensderfer were able to find a location in so short a time that has borne so well the critical test it has been subjected to."

The original Charter authorized the Union Pacific Company to build through Nevada to the California line; but the Act of July 3,

1866, changed this and allowed the Central Pacific to build east until they met the Union Pacific, and gave the Union Pacific the same west-bound privilege, and the race was on, both lines straining every nerve to reach the construction limit of their charters, under which the Union Pacific had been authorized to proceed west to the California line and the Central Pacific to come east as far as it could; naturally, the latter coveted Salt Lake or Ogden as its destination.

The race was to the swiftest; their grades met in Western Utah during the winter of 1869 and passed, paralleling, until the Union Pacific had progressed as far as 225 miles beyond this meeting point. Meantime, Congress was asked to settle these terminal differences. Finally, the owners made their own agreement, and Promontory was made the junction, and for a little time the point of interchange. Later, the Union Pacific yielded about 50 miles of this final distance and conveyed it to the Central Pacific under sale; 5½ miles under Union Pacific ownership out of Ogden were leased to the Central Pacific and stands in such relation today, and the remainder of the grade was abandoned.

Leavenworth, Pawnee & Western

For description of "The great Railroad Wedding—Driving of the Golden Spike" see Appendix "D," page 39.

The Leavenworth, Pawnee & Western was incorporated in 1855 as a Kansas company; organized in January, 1857; reorganized in June, 1863, and under authority of Congress its name was changed that year to Union Pacific Eastern Division. Its first plan contemplated a line from Leavenworth to Pawnee (now Fort Riley), thence westward.

Ground was broken at the Kansas-Missouri State Line (Wyandotte) in the summer of 1863; grading began in September of that year. Hallett & Fremont (John C. Fremont) were the contractors who undertook the work.

November 28, 1864, found 37 miles built to a point near Lawrence; 10 miles more were built the following year; Manhattan was reached August 18, 1866, and on October 7th, the same year, Pawnee was reached, 135 miles out. During the year 1867 the line was finished to the 405th mile post; in March 1870, to Kit Carson, and on August 15, 1870, it was completed to Denver, the original Republican Valley survey having been changed to the "Smoky Hill Route," west from Junction City. After the line had been about half completed in the direction of Denver, certain disaffected stockholders sought to change its course and build to Los Angeles or San Diego via the Arkansas River and a Southern route.

On June 26, 1865, the building of a line between Leavenworth and Lawrence was started, and completed during the following winter.

In 1873 the Kansas Pacific became involved and fell into the hands of receivers C. S. Greeley and Henry Villard, in whose control it was held until 1879, when Sylvester T. Smith succeeded them in control. In January, 1880, it was consolidated with the Union Pacific.

Denver Pacific Railroad

The Denver Pacific was organized in November, 1867, with Be'a M. Hughes as President, David H. Moffat, Treasurer, and F. M. Case, Chief Engineer, through whom the funds necessary for locating, grading and cross-tieing the line were either subscribed or secured. The Union Pacific had agreed to iron and equip it for operation. Grading was commenced in May, 1868, and its 106 miles completed during that year to Cheyenne. In January, 1880, as elsewhere stated, the Kansas Pacific was merged with the Union Pacific. The Denver Pacific was also included in this merger, making it complete.

History of the Missouri River Bridge at Omaha and General Grenville M. Dodge's Connection Therewith

A Union Pacific Transfer Company was organized and began operations in 1866. In connection with it, ferry boats were built to insure a quicker handling of Union Pacific equipment and supplies.

The auxiliary Act of July 2, 1864, authorized the construction of a bridge across the Missouri River somewhere between Bellevue and Florence.

As previously noted, General Grenville M. Dodge accepted service with the Union Pacific Company as Chief Engineer May 15, 1866. In a letter written to J. Sterling Morton, November 12, 1902, he said: "The first orders that came to me were to make an examination of the Missouri River from the mouth of the Platte River to Florence to determine the best location from an engineering standpoint, for a railroad bridge across the river."

"I made as thorough a preliminary examination as I could and on December 3, 1866, reported that from an engineering point of view, and taking into consideration the cost of the bridge and approaches, grades and distances, the crossing at Childs Mills was the best. I compared with it the crossing at South Omaha and at the 'telegraph pole' (near the eastern approach of the present Illinois Central Bridge), but arrived at the conclusion that wherever the bridge was built, it should be a high bridge."

"Upon receipt of the report, the Company sent me additional instructions to continue this examination, and in making my report to take into consideration the location of the bridge from a commercial, as well as an engineering, point of view, bearing in mind that the terminus of the road and our shops were then located in Omaha."

"On January 15, 1867, I made my report favoring what was known as the 'M. & M.' location, or the location of the present bridge, having located the 'M. & M.' line to this crossing point in 1853."

General Dodge in an address delivered at Omaha, November 25, 1901, said in part:

"In 1858, if I recollect rightly, on returning from my reconnaissance west with my party, which had been out the entire summer, I camped them in Council Bluffs, and went to the Pacific House. At that time Abraham Lincoln was visiting the Bluffs; he heard of my return from my surveys and sought me out at the Pacific House and on the porch of that hotel he sat with me for two hours or more and drew out of me all the facts I had obtained on my survey and, naturally, my opinion as to the route for a railroad west, and as to the feasibility of building it."

"I thought no more of this at the time than that possibly I had been giving away secrets that belonged to my employers in this work."

"In 1863, whilst in command of the District of Corinth, Mississippi, I received a dispatch from General Grant to proceed to Washington and report to the President, no explanation coming with the dispatch."

"When I reached Washington and reported to the President, I soon ascertained that I was sent there for a consultation in regard to the eastern terminus of the Union Pacific Railroad."

"He had remembered his conversation with me on the Pacific House porch and under the law it had been made his duty to determine the eastern terminus of the Union Pacific road, and those of you who remember that time, know what pressure was brought to bear on the President to name different points far north and far south. After a longer conversation with me, obtaining my views fully and the reasons for them, the President finally determined to make it, as you all know, on the western border of Iowa opposite this city."

"That decision, in my opinion, settled beyond all question the future of your City and your State."

An act approved February 24, 1871, authorized the Union Pacific Railway Company to issue bonds to the amount of \$2,500,000, to cover the cost of a Missouri River bridge and the grading of its approaches.

A contract was made with the Boomer Bridge Company of Chicago in the spring of 1868, for \$1,089,500.

On July 26, 1869, further bridge work was suspended and not resumed until April 10, 1870, when a second contract was let to the Ameri-

can Bridge Company of Chicago, which brought the work to completion March 14, 1872, at a cost of \$1,750,000. (Then, as stated above, came the \$2,500,000 Capitalization Act of February 24, 1871.)

The bridge built by the American Bridge Company was known as the "Post's Patent;" it was sixty feet above high water mark, eleven spans, two hundred and fifty feet each. The west approach was reached over a trestle sixty feet high and seven hundred and twenty-nine feet long and the eastern approach graded for two miles on the Iowa side. It was a single-track structure and no provision made for foot passengers or teams, which was contemplated in its charter.

On the night of August 4, 1877, its eastern end was wrecked by a cyclone. It was temporarily repaired and then used until the close of 1886, when it was rebuilt, widened to fifty-six feet, three inches, 1750 feet long, with filled approaches.

Douglas County gave to the original bridge company, \$250,000 in bonds; the City of Omaha, its station grounds; and Council Bluffs voted \$200,000 and the land needed, but never yielded the bonds to the company.

Gauge

Prior to 1875, American railways were of varying gauge. Some in England had a seven-foot spread between the rails; the Erie was on a six-foot gauge, so were many of the railways west of the Ohio River and throughout the South. Eastern States had established standards varying from six feet down. Lines in Missouri were five and a half feet, but the Vanderbilt lines and the Baltimore & Ohio (after which we seem to have patterned as to grades and curvature) were four feet eight and one-half inches, the standard of today.

The railways of Continental Europe were being readjusted to a five-foot three-inch width.

This feature of gauge-fixing for the Pacific railroads was one of the most embarrassing duties devolving upon President Lincoln, California having legislated a five-foot standard—something at variance with any other gauge in use in this country. The President finally settled upon five feet, influenced, evidently, by Pacific Coast requirements.

Senators Trumbull of Illinois and Harlan of Iowa joined issues for the then generally accepted new standard of the East of four feet eight and one-half inches. California representatives resisted, insisting on their standard of five feet, so on the second day of March, 1863, the following bill passed Congress, taking the matter out of the President's hands. "Be it enacted by the Senate and House of Representatives of the United States in Congress assembled, that the gauge of the Pacific railroad and its branches throughout their whole extent, from the Pacific Coast to the Missouri River shall be, and hereby is, established at FOUR FEET EIGHT AND ONE-HALF INCHES."

The maximum grade of the Baltimore & Ohio in 1862, was 116.2 feet per mile, and ten degrees the maximum curvature, which under the terms of the original act of 1862, could not be exceeded on the Pacific railroad.

Under an Act of March 3, 1869, the lands, originally given the Union Pacific Railroad in aid of a newly-constructed Denver Pacific branch, were transferred from the Union Pacific to the Denver Pacific, to better encourage the construction of a line from Denver to Cheyenne, and the act also authorized the Union Pacific Eastern Division to extend its line to Denver, there to connect with the Denver Pacific, and further authorized the Union Pacific Eastern Division to bond and mortgage its line for \$32,000 per mile.

On April 10, 1869, a joint resolution of both branches of Congress authorized the change of the name from the Union Pacific Eastern Division to the Kansas Pacific Railway Company.

Under authority of Congress, on January 24, 1880, a consolidation of the Union Pacific Railroad & Telegraph Company, the Denver Pacific Railway & Telegraph Company, and the Kansas Pacific Railway Company was legalized under the name of "The Union Pacific Railway Company."

First Trains

The first train of which there is any record was run fifteen miles out, to Salings Grove, in November, 1865. Among others, it carried General Sherman, Thomas C. Durant and Andrew J. Poppleton, riding on flat cars with nail kegs for seats.

The next was an inspection trip of Government Directors, which left Omaha, September 11, 1866, escorted by Samuel B. Reed, then General Superintendent, General Grenville M. Dodge, as Chief Engineer and Silas Seymour, as Consulting Engineer.

The Government was represented by the Honorable Jesse L. Williams of Indiana, Honorable T. J. Carter of Illinois, Honorable Springer Harbaugh of Pennsylvania, and the Honorable Charles C. Sherman of Ohio. They made an eight-hour run to Kearney, where Gederal Dodge, Jesse L. Williams, Major Chesbrough and Silas Seymour left the party and continued on to Denver by stage. Their errand was a further

exploitation and report as to the most available mountain crossing, which up to this time was undecided.

It will be recalled that in the original act creating the Union Pacific company, it was required that 100 miles of line be completed on or before June 27, 1866, and the 247 miles to the 100th meridian, on or before December 31, 1867. The first 100 miles were finished on June 2, 1866, and by the fifth day of October of that year the 100th meridian had been crossed, 245 miles of the road having been built in 182 working days.

Accordingly, invitations were sent to the President of the United States, to Members of Congress, and to men prominent in commercial and transportation affairs over the East, to join an excursion party leaving New York on the fifteenth of October, to travel by the New Jersey Central and Pennsylvanin Railroads to Pittsburg, thence via the Pittsburg, Fort Wayne & Chicago to Chicago. Government Directors, Jesse L. Williams of Fort Wayne, Springer Harbaugh of Pittsburg and Sherman of Ohio, joined them en route to Chicago. Williams and Harbaugh, having been recently over the line, returned home after having helped to complete all necessary arrangements for the trip.

At Chicago the party separated; some proceeded by rail over the Chicago & North-Western to Dennison, Iowa, and staged to Council Bluffs; others left via the Chicago, Burlington & Quincy and Hannibal & St. Joseph, to St. Joseph, using two Missouri River packets northward—the "Denver" with Captain Waddell, and the "Colorado" with Captain Hooper. Forty-eight hours brought them to Council Bluffs, where they arrived on Monday morning, October 22nd.

Prominent citizens of Omaha and Council Bluffs were on hand to receive them. On the committee of entertainment were Governor Saunders, Secretary Paddock, Mayor Miller, and Vice President Patrick of the Omaha Board of Trade. A reception and ball was given them at the old Hernden Hotel, later remodeled and enlarged, and used as Union Pacific Headquarters until the completion of the present headquarters building. Senator Patterson and Government Director Sherman, Perry H. Smith, Vice President of the Chicago & North-Western, George L. Dunlap, its General Superintendent, Honorable B. F. Wade, United States Senator, and other notables of the East, rejoined at Omaha. Vice President Durant, Webster Snyder, Major L. S. Bent, General and Daniel Casement, Mr. Congdon of the Mechanical Department, and others, took charge of the party West from Omaha. Their palatial train consisted of nine cars, the Directors' car in the rear and the "President Lincoln" car (then the property of Mr. Durant) ahead of it; the balance, passenger coaches, a "mess car," and a baggage

and supply car, were built at Omaha shops. The train and party left Omaha station at 10 o'clock the morning of October 24th, in charge of Vice President Durant.

After a comfortable journey they arrived, and spent the night at Columbus, where a Pawnee Indian entertainment was arranged. The morning of the 25th at 10 o'clock they left for the 100th meridian, where the train halted for half an hour, "directly opposite the monument designating the point where the line of the road crosses the 100th meridian of longitude, for the purpose of enabling Professor Carbutt to photograph views representing the excursion train"—then west to the end of the track at mile post 279, and witnessed the laying of 800 feet of track during their brief stay of 30 minutes, after which they turned their faces homeward, arriving at Omaha in the evening of that day.

Advent of Iowa Lines Into Council Bluffs

Chicago & North-Western	Sund	ay, January 17, 1867
St. Joseph & Council Bluffs (K. C.)		December 20, 1867
M. & M. (Chicago Rock Island & Pacific)		June 9, 1869
Burlington & Missouri River in Iowa		. January 3, 1870
Chicago, Milwaukee & St. Paul		September 1, 1882
Illinois Central		December 18, 1899
Chicago & Great Western		November 1, 1903

Advent of Other Lines Into Omaha

Omaha & North-Western (C. St. P. M. & O.)	Summer of 1869
Omaha & South-Western	Summer of 1869
Omaha & South-Western absorbed by Burlington &	,

Missouri River in Nebraska,

Terminus at Kearney, Nebraska Summer of 1871

The St. Joseph & Denver City (St. J. & G. I.) operated trains from Hastings into Kearney over the Burlington's Hastings-Kearney line from April 1, 1874, to December 1, 1875.

The Missouri Pacific reached Kansas City during October, 1865.

The Hannibal and St. Joseph reached St. Joseph, February 14, 1859.

Historical Incidents

The first locomotive purchased by the Union Pacific company was the "General Sherman," Thomas Jordan, engineer.

Their second engine, the "General McPherson," came up the Missouri River on the packet, "Colorado," in July, 1865; was set up and made ready for use on August 3, 1865, with Luther O. Farington as engineer.

The first Union Pacific station building stood under the hill, near the foot of Capitol Avenue and Dodge Street. T. C. Morgan was the first agent.

Crowning Event

On August 13, 1870, the General Passenger and General Freight Agents of the Central and Union Pacific lines, extended the following invitation to the officers (and their families) of all the more important lines throughout the East, as follows:

"The General Officers of the Central and Union Pacific Railroads unite in extending to you a most cordial invitation to join in a special excursion of the General Passenger, Ticket and Freight Agents of the railroads of the United States and Canada."

"A special train of palace sleepers will leave Omaha fifteen days previous to the sitting of the General Ticket Agents' convention at Milwaukee, and return in time to accommodate those wishing to attend that meeting."

"The train will pass en route, Great Salt Lake City, the canyons of the Rocky Mountains, the passes of the Sierras, and other points of interest, by daylight."

"We trust you will find it convenient to join the excursion, and unite pleasure and rest with business, while studying the new relations existing between the great states and territories west of the Missouri River, and the older states of the South and East; and more especially the questions of necessity arising from the new routes opened up by the Pacific Railway in connection with the several steamship lines established between San Francisco and the Trans-Pacific ports of India, China, Japan, Australia and the Sandwich Islands; and the ports of the North and South Pacific."

"A correct knowledge of all the important facts connected with these new developments can be obtained only by personal investigation. Every railway on the continent is intimately interested. Union and cooperation are required to utilize the advantages arising from the position of our country in relation to the carrying trade between the continents on either side."

(Signed)

T. H. Goodman, G. P. A., C. P. R. R. Francis Colton, G. P. A., U. P. R. R. C. W. Smith, G. F. A., C. P. R. R. Wm. Martin, G. F. A., U. P. R. R.

Sixteen days later, the following circular was issued:

Union & Central Pacific R. R. Line

General Passenger Department, Union Pacific Railroad Omaha, August 31, 1870.

Dear Sirs:

Respectfully referring to the invitation from this line of August 15th, asking you to join an excursion to the Pacific, you are hereby notified that a special train for the conveyance of those invited will leave Omaha, September 13th, arriving in San Francisco Sunday the 18th, or Monday the 19th, according to stops en route which the party may wish to make.

Returning, leave San Francisco, Friday evening, the 23rd, arriving at Omaha the 27th, Chicago, the 28th.

If you wish to remain in San Francisco a longer time than indicated above, you can come earlier than the regular day of starting.

Joseph Young, Esq., General Superintendent of the Utah Central Railroad, unites in the invitation and will take the special train over his road to Salt Lake City and return.

(Signed)

T. H. Goodman, G. P. A., C. P. R. R. Francis Colton, G. P. A., U. P. R. R.

There had gathered at Chicago by September 12th, a representative party of eastern and southern railway traffic officers. With "patronage" divided among the various lines, they proceeded to Council Bluffs, arriving at ten o'clock, the morning of the 13th.

They ferried the river to the Omaha side and were met by a committee of the common council and shown about the City; at noon were lunched at the Wyoming House, where E. A. Allen, President of the council, welcomed them. Mr. Allen's opening remarks were as follows:

"Gentlemen; the train leaves at twelve-twenty; we will do the talking; we expect you to do the eating."

From this luncheon they were taken directly to the train made up of five Pullman palace drawing-room and sleeping cars, one smoking car, a baggage car, and two coaches with a stationary organ, couches and easy chairs—"All of them palaces of luxury and comfort."

At noon on Friday they arrived at Ogden, the terminus of the Union Pacific, and were transferred to the Utah Central for Salt Lake City. The first view of Great Salt Lake and its Valley inspired the following beautiful description, worthy of review:

"Beyond it, for many miles, stretched the green, flowery valley, with its blue lake shimmering in the sun, and bounded at last by an

abrupt wall of mountain. On our left still towered the range, rough and jagged with crevices; its solid base green and gray; its rugged summits white with eternal snow. Side by side, grouped and blended, were summer and winter, Italy and Switzerland; the dreamy Orient and the restless Heart of the West. We would gladly have spent days in this favored place of nature."

On their return to Ogden from Salt Lake, they were transferred from the Pullman palaces of the Union Pacific to the "Silver Palaces" of the Central Pacific. Six of these magnificent coaches, including smoking and baggage cars, were provided. In addition, the superintendent's car, laden with refreshments and fruit, the gift of generous San Franciscans, brought up the rear. A more beautiful train never stood at a station to receive a more grateful party."

They left Ogden on schedule, on Friday at eight P. M., arriving at the summit of the Sierras at the breakfast hour on Sunday, the 18th. Descriptive of the trip, their reporter said:

"The ascent from Truckee mingles the grand with the beautiful. The first rays of the sun added brilliancy to the landscape and tinged the mountain peaks with gold. All were pointing to objects of beauty and grandeur as we rounded a mountain peak or pursued our course through a gorge, or darted through a tunnel; on every side and ever, scenes awing, grand and beautiful, passed before."

A stay of two hours was taken at the summit, during which time "we enjoyed ourselves as children, rambling over the mountain, in search of lichens, mosses and ferns, of which each lady brought away a large selection. Fifteen miles more of the same enchanting scenery; the long ridges of the Sierras, bristling with pine trees like huge chevaux-de-frise, filled up the back-ground. We arrived, after several false alarms, at the real Cape Horn—a scene of sublime grandeur unequaled on the whole Transcontinental Railroad."

At five P. M. the train reached Sacramento, where the party was joined by Mr. Town, General Superintendent and Mr. Corning, his assistant. The trip was completed to Oakland without incident; then to San Francisco, where old friends were met and the time spent in sight-seeing.

Mr. Neilson, who spoke at the Agricultural Park Fair then going on, said: "The Pacific Railroad has been built ostensibly to accommodate the traffic of 700,000 people, residents of the Pacific Slope, but there are 2,000,000 others in the golden lands of Australia and New Zealand, as active, enterprising, wealthy and fond of travel as are we, to whom our great Transcontinental Railroad is destined to become an accom-

modation fully as great as to us. These colonies have an immense passenger traffic with Great Britain. Their traffic has hitherto passed along two routes. One, by steamer up the Red Sea, thence by railroad across the Isthmus of Suez, then again by steamer up the Mediterranean. This voyage was accomplished in 56 days, at a cost of not less than \$600 for first-class passage. Second-class passengers were not taken along this line at all. The other route, by sailing-vessels around the 'Horn.' The passage was a stormy, uncomfortable and tedious one that averaged one hundred days and cost \$400, first-class. The Red Sea route during three or four months of the year was so exceedingly unhealthful as to deter all persons not absolutely compelled by business to travel along it.

"For a moment let us consider what we have to offer as a substitute for these two routes. From England to New York we have the finest steamers in the world, averaging the trip in nine days. [Now less than five days.] Then we have our Grand Transcontinental Railroad with all the varied experiences it opens up to the traveler, accomplishing the space from Ocean to Ocean in less than seven days. [In late years accomplished in ninety to one hundred hours.] Steamers averaging twelve knots per hour on the mild Pacific, though much less than is now steamed on the more stormy Atlantic, would, nevertheless, reach Melbourne in twenty days. Thus the whole voyage between England and Australia would occupy but thirty-six or say forty days. With stoppages, we would still accomplish the distance in at least a fortnight less than by the unhealthful Red Sea Route."

Referring to a bill before Congress asking for Ship Subsidy, Mr. Neilson said: "It is to the interest of the railway men to use their influence to secure the passage of that bill as, without a subsidy, no steam line could compete with the wealthy Peninsula & Oriental Company, which was so largely subsidized by the English Government, and takes the mails and traffic via the Red Sea."

Tuesday was spent in sight-seeing about San Francisco. Wednesday morning an excursion was arranged over the San Jose Railroad, visiting San Mateo, the guests of Alvinza Hayward; then to Fair Oaks, Marilo Park, and Belmont. The following morning a trip was arranged around Golden Gate Harbor on the Pacific Mail Company's ship, "America," and on the "Crysopolis," tendered the party by the California Steam Navigation Company.

Friday, September 23, 1870, was their last day on the Coast. Resolutions of appreciation of their treatment by the Central Pacific people were drafted and tendered; a dinner at the Grand Hotel closed the day and all further Coast incidents of the trip. From that dinner they were driven to the docks and ferried to Oakland, "The Brooklyn of San Francisco," where stood the "Silver Palace Train" to convey them homeward.

T. A. Weed, in his farewell talk to his San Francisco hosts, said "No country without these vast plains and far-rolling rivers, snow-capped mountains, Golden Gate, and Union and Central Pacific Railways, would be big enough to hold us in the future."

"Gentlemen, after all we had read and heard of this colossal enterprise of laying the iron rail across such vast regions, and upon and around such frowning mountains, we confess our anticipations are exceeded. We are agreeably surprised at the completeness of your grades, at the perfection of your track and the equipment of your road. In these latter respects you can favorably compare with our Eastern roads."

"It will give us pleasure on our return to commend the road for safety and comfort to all transcontinental travelers."

Then followed the presentation of a pin of beautiful setting to Mr. T. H. Goodman, G. P. A., C. P. R. R., and another suitable offering of the same sort was given Mr. Beverly R. Keim, A. G. P. A., U. P. R. R. This took place at Humboldt, on the plains. The trip from there to Omaha was without particular interest. In a closing account of the trip, it was said: "And now we have passed over the Pacific roads and comprehend something of the grandeur of this colossal enterprise of laying the iron track across 2,000 miles of plain and mountains. We have seen that the road is a fixed fact. Passing and repassing, we saw it firmly bedded, strongly culverted and bridged, splendidly equipped and efficiently worked. * * *"

"With its Eastern railroad and Trans-Pacific steam connection, we saw that by an enlightened view and a liberal policy on the part of all concerned, the most sanguine expectations of far-seeing statesmen would be realized and the American Continent made the highway from Europe to Asia, and to the ports of the North and South Pacific, with the prophecies of Thomas H. Benton, uttered fifteen years ago in the United States Senate, on the verge of fulfilment."

Mr. Benton had said: "The world is in motion following the track of the sun to its dip in the Western Ocean. Westward the torrents of emigration direct their course and soon the country between the Missouri River and California is to show the most rapid expansion of the human race that the ages of men have ever beheld. It will all be settled up and that with magical rapidity; settlements will promote the road—the road will aggrandize the settlements. Soon it will be a line of towns, villages, cities and farms. * * * * * Twenty-five centuries have fought for a commercial road to India, we have it as a peaceable possession. Vasco de Gama, in the discovery of the Cape of Good Hope, and the opening of a new route to India, independent of the Moslem power,

eclipsed in his day the glory of Columbus, balked in the discovery of his well-defined route. Let us vindicate the glory of Columbus by realizing his divine idea of REACHING THE EAST BY GOING WEST."

On Tuesday, September 27th, at 2 P. M., this distinguished party reached Omaha in safety and separated; scattering among the four lines crossing Iowa, they reached Chicago twenty-four hours later, accomplishing the return trip from San Francisco in four days and sixteen hours, which closed the incident; in our estimation the greatest railroad excursion in our country's history.

The completion of the Pacific railways, Omaha to San Francisco, was made a day of national rejoicing, with civic and military parades in Chicago and Eastern cities. But four times so far in our history has there been any such notice taken of industrial achievement: first, the laying of the Atlantic Cable; second, the construction of the Erie Canal; third, the completion of the Pacific railways; fourth, the opening of the Panama Canal.

The present Union Pacific Railroad Company was incorporated January 1, 1897, under an act of the Utah Legislature, approved January 22, 1897, authorizing the formation of a corporation to "purchase and operate railroads."

This new corporation purchased all the properties and appurtenances of the old company, acquiring them under a sale made by Judge W. D. Cornish, Special Master of the Court, in front of the freight station, Ninth and Jackson Streets, Omaha, Nebraska, on November 1, 1897, under a bid of \$57,564,932.76. (The World's Greatest Auction).

Up to the spring of 1899, 16.62 miles of second track had been laid on the Union Pacific. By January 1, 1919, 974.10 miles of second track had been laid, and 4.14 of third and fourth track.

In 1899, there were 12,178 feet of permanent steel and concrete bridging; January 1, 1919, 56,377 feet.

A total of 170 miles of new first main track has been constructed on new locations since 1899, and a total distance saved of 39.78 miles as follows:

Lookout to Medicine Bow Leroy to Bear River .			re-alignment 12.03 " 9.56	
			" 8.94	
Summit to Lane			" 3.87	
Allen Junction to Dana .			5.07	
Howells to Huttons			2.11	
Rawlins to Tipton			1.44	
Green River to Bryan .			" .45	"
Cooper Lake to Lookout			" .38	"
Total			39 78	miles

Grade reductions have brought the roadway to practically a controlling maximum of 43 feet to the mile, or .8%; except westbound, Cheyenne to Buford, where the maximum is still 82 feet to the mile; Echo to Baskin, eastbound, 63 feet; Omaha to Summit, 66 feet; Carr to Borie, 65 feet. On the Kansas Division, Ellsworth to Kanopolis, eastbound, 90 feet; Carniero to Kanopolis, westbound, 79 feet. A reduction in curvature has been made from a maximum of about 12 degrees to about 6 degrees.

Some of the important reconstruction undertaken has been the cutoff from Summit to Lane, at a cost of more than \$3,000,000; the relaying and double-tracking of the line from Kansas City to Topeka and the ballasting of the whole distance of 67 miles at a final cost of about \$3,000,000; the enlargement and modernization at a cost of a million and a half dollars of the Union Pacific Shops at Omaha, equipped throughout with the latest machinery of the most serviceable sort regardless of expense.

A new Union Station at Omaha was appropriated for and made ready very soon after the new owners took charge—a standing credit to the City and the Company.

Then followed general work of improvement, enlarging and remodeling interior shops, icing plants and station structures and the expansion of Omaha terminal yards with four newly-laid main tracks from the west approach of the bridge to the Summit, increasing its track area 44,635 feet, or nearly eight and one-half miles.

Tie-treating plants, with a capacity of a million and a half ties per year, have been built at Topeka and Laramie, and something of the greatest concern to the patronizing public has been the installation of an electric signal system complete, from Council Bluffs to Ogden, Kansas City to Ellis, Julesburg to Denver, and Denver to Cheyenne. This improvement covers over 1,598 miles of automatic block signaling, with twenty-four interlocking plants, operating 546 working levers; all at a cost of three million dollars.

In order to obtain a maximum grade of sixty feet to the mile, an additional track was built, between April and December, 1915, through Weber Canyon, from Wahsatch to Emory, Utah. 600,000 cubic yards of material, weighing 1,200,000 tons, was removed, and several extensive fills were made. Traversing the canyon, the new line, which has a much lighter curvature, is some sixty-five feet above the old. All eastward traffic is now routed over the new line, which affords additional viewpoints for the striking scenery of the gorge.

One of the notable engineering feats of modern times was consummated in December 1916, when the steel bridge of the Union Pacific Railroad crossing the Missouri River from Council Bluffs to Omaha was moved out of the way and a new steel structure was rolled into place and riveted to the former piers. This colossal operation was perfected in about an hour, with practically no disturbance to traffic. The new bridge, which weighs about eleven and a quarter million pounds and cost approximately \$1,000,000.00, is the third to occupy the historic site. Six railroads in addition to the Union Pacific use the bridge and some 300 trains daily pass over its tracks.

The property has been re-equipped with the new rolling stock (including power) of the latest and most serviceable pattern, best adapted to its mountain and valley lines, for both passenger and freight service.

January 1, 1919, found 140 miles of track with 100-pound rail; 1,960 miles with 90-pound rail; 720 miles with 80-pound rail; 500 miles with 75-pound rail; the remainder with rails of 70 pounds and less.

A special page in the appendix shows Union Pacific equipment in detail.

The present-day press and periodicals have drifted into indulgencies characterizing the Union Pacific as an impoverished, enfeebled "streak of rust," prior to what they seem to designate as the "reconstruction period of 1900." By some it is probably done for the emphasis of comparison, others are space writers whose utterances reveal an impaired memory or a misdirected pen, for there has never been an hour since the 10th day of May, 1869, when this railroad and its companion line, the Central Pacific, have not been well abreast of the times and maintained its creditable physical condition throughout all the states and territories they served. Wisely and well-built and equipped from the first, they have been kept so.

The pioneer "Hotel train of 1870" which left Council Bluffs every Thursday at eight A. M., with a six P. M. arrival at Ogden on Saturday, carried the first sleeping and dining-car service across the plains.

The Union Pacific was the first in the far west to install tourist sleepers to the Coast over its lines and those of its co-operating connections; the first line west of the Missouri River to equip its through trains with dining-car service; and took the first dining cars into the City of Denver.

^{*}See Appendix "C"

The Union and Central Pacific led all lines to the Coast with their palatial vestibuled "Golden Gate Special" in 1888-9; library, barber chair, and bath—an exclusive Golden Limited, of Pullman's best creation.

It was also the first line to start exclusive, expedited mail trains and today handles one of the heaviest special mail routes in the United States.

As early as 1888 the Union Pacific began ballasting with Sherman gravel, which has given it one of the smoothest and cleanest road beds in America.

The first Sherman gravel went down between mile 4.53 and 4.80; Sherman gravel ballasting began actively under the presidency of S. H. H. Clark in 1892, and was under suspense only during a part of its receivership period.

The Union Pacific was the first to semaphore its railroad crossings and the first in this field to electric light its trains and engines; the first to equip itself with electric block and interlocking plants, the first to double-track its line and the first to install composite telephones along its railway wires.

There has never been a year when the Union Pacific, Denver Pacific and Kansas Pacific, taken together, have not been self-sustaining.

They went down and into receivership on October 13, 1893, under the weight of their outside obligations, such as the Union Pacific, Denver & Gulf; Fort Worth & Denver City, and some other lines whose securities they had guaranteed.

The receivership was essentially beneficia dissimulata; something of this sort was necessary to relieve them lawfully and effectually from Government interlacement of interests and to free them from side lines sapping their substance. It was, therefore, a process of filtration and refinement unregretted.

The fertility and dependable earning-power of this great property soon passed within range of the keen discernment of Mr. Edward H. Harriman, and seemingly stood first in his favor. It has been splendidly responsive to the quickening touch of his master hand.

A Napoleonic spirit of enterprise distinguished Mr. Harriman and his associate owners and managers among all others in the field of American transportation.

Without stint or stickle, millions were appropriated and devoted to betterments which brought the property up to its present new century standard.

It is a matter of greatest regret with the people of the west that our late President could not have been longer spared to see the full fruition of this magnificent investment; for he builded even better than he knew.

Appendix "A"

First Annual Report Made of Union Pacific Earnings and a Comparison with the Present Earnings

The first report was made by T. E. Sickles, Chief Engineer and General Superintendent, for the calendar year of 1870. The figures shown in comparison are from the Annual Report for the calendar year of 1918.

						1870 (Calendar)	1918 (Calendar)
Freight earnings						\$3,058,514.71	\$72,679,801.68
Passenger earnings .						3,818,627.55	18,055,066.36
Mail earnings						274,513.58	1,662,821.56
Express earnings						281,691.76	2,250,888.28
Miscellaneous earnings						191,929.53	3,794,787.10
Total						\$7,625,277.13	\$98,443,364.98
Passengers carried .						. 142,623	4,957,924
Tons freight one mile—le Tons freight one mile—t							772,962,861 8,772,024,951
Tons freight one mile—t	otal	I				. 71,779,106	9,544,987,812

Appendix "B"

Comparison of Equipment Owned by the Union Pacific at the End of the Calendar Year of 1870 and the End of the Calendar Year of 1918

MOTIVE POWER

Calendar Year 1870	Calendar Year 1918 U. P. R. R. and O. S. L. R. R.
Passenger engines 27 Freight engines 118 Switch engines 5	Passenger engines 369 Freight engines 756 Switch engines 189
Total	Total
CA	RS BARCE
Coaches 40 Baggage cars 11 Mail cars 8 Express cars 8 Pay cars 2 Officers' cars 2 Lincoln car 1 Emigrant cars 22 Cabooses 6 Wreckers and derrick cars 6 Flat cars 1,165 Box cars 1,154 Stock cars 48 Dump cars 52	Coaches 171 Baggage cars 193 Mail cars 77 Express cars † Pay cars 21 Uncoln car 21 Emigrant cars 22 Cabooses 589 Wreckers and derrick cars 26 Flat cars 1,563 Box cars 18,722 Stock cars 5,958 Dump cars * Coal cars 7,049 Ballast cars 2,671 Steam shovels 8 Tool cars 172 Water and tank cars 177 Chair cars 185 Composite cars 8 Dining cars 64 Instruction cars 22 Motor cars 24 Miscellaneous 59 Baggage and Mail 64 Baggage, Mail and Passenger 12 Baggage and Passenger 33 Motor Trailers 10 Snow Plows 28
†Now included with baggage cars. *Now included with coal cars.	Roadway Gondola

Appendix "C"

The Hotel Train of 1870*

Under date of October 26, 1909, Mr. W. A. Deuel, then General Manager of the Denver, Northwestern & Pacific Railway Company (The Moffat Line), wrote us from Denver, Colorado, as follows:

"The hotel train was put on during the Hammond and Mead Administration in the spring of 1870. The original scheme was to run the train and train-crews from Omaha to San Francisco, using a Union Pacific and Central Pacific conductor on each train. For some reason the Central Pacific declined to enter the agreement, and the Union Pacific discontinued the train after running it for several months. Ten dollars excess fare was charged. The train was very popular with the traveling public."

Mr. Deuel recalls that this "Hotel Train of 1870" was of complete Pullman construction throughout; three sleepers, one diner and buffet car, and one baggage car. It was a weekly train; left Council Bluffs every Thursday morning at eight o'clock, and was due at Ogden at six o'clock in the evening of the Saturday following. Returning, it left Ogden Monday morning, arriving at Omaha Wednesday evening. It was double-crewed, having two conductors and baggagemen and four brakemen. Mr. Deuel, who was its first conductor, handled the train to North Platte and was there relieved by Conductor Heath, who took charge of the train from North Platte to Laramie. At Laramie Conductor Deuel resumed and completed the trip to Ogden. Each conductor was supported by his own crew.

The train was handled with hand brakes and link and pin couplers and was scheduled at an average speed of twenty miles an hour.

This service was continued for a period of about six months during the open, or summer, season of 1870.

^{*}Referred to on page 34 of the text.

Appendix "D"

The Great Railroad Wedding-Driving the Last Spike

American history, in its triumphs of skill, labor and genius, knows no event of greater, thrilling interest, than the scene which attended the driving of the last spike, which united the East and West with the bands of iron. The completion of a project so grand in conception, so successful in execution, and so fruitful and rich in promise, was worthy of world-wide celebrity.

Upon the 10th of May, 1869, the rival roads approached each other, at Promontory, Utah, and two lengths of rails were left for the day's work. At 8 A. M., spectators began to arrive; at quarter to 9 A. M., the whistle of the Central Pacific Railroad was heard, and the first train arrived, bringing a large number of passengers. Then two additional trains arrived on the Union Pacific Railroad from the East. At a quarter of 11 A. M., the Chinese workmen commenced leveling the bed of the road, with picks and shovels, preparatory to placing the ties. At a quarter past eleven the Governor's train (Governor Stanford) arrived. The engine was gaily decorated with little flags and ribbons—the red, white and blue. The last tie put in place was eight feet long, eight inches wide and six inches thick. It was made of California laurel, finely polished, and ornamented with a silver escutcheon, bearing the following inscription:

"THE LAST TIE LAID ON THE PACIFIC RAILROAD, MAY 10, 1869."

Then follow the names of the directors and officers of the Central Pacific Company, and of the presenter of the tie.

The exact point of contact of the road was 1,085.8 miles west from Omaha, which allowed 690 miles to the Central Pacific Railroad, from Sacramento, for their portion of the work. The engine Jupiter, of the Central Pacific Railroad and the engine 119 of the Union Pacific Railroad, moved up to within 30 feet of each other.

Just before noon the announcement was sent to Washington, that the driving of the LAST SPIKE of the railroad which connected the Atlantic and Pacific, would be communicated to all the telegraph offices in the country the moment the work was done, and instantly a large crowd gathered around the offices of the Western Union Telegraph Company to receive the welcome news.

The manager of the company placed a magnetic ball in a conspicuous position where all present could witness the performance, and connected the same with the main lines, notifying the various offices of the country that he was ready. New Orleans, New York and Boston instantly answered "Ready."

In San Francisco, the wires were connected with the fire-alarm in the tower, where the heavy ring of the bell might spread the news immediately over the city, as quick as the event was completed.

Waiting for some time in impatience, at last came this message from Promontory Point, at 2:27 P. M.:

"ALMOST READY. HATS OFF, PRAYER IS BEING OFFERED."

A silence for the prayer ensued; at 2:40 P. M., the bell tapped again, and the officer at Promontory said:

"WE HAVE GOT DONE PRAYING, THE SPIKE IS ABOUT TO BE PRESENTED."

Chicago replied: "WE UNDERSTAND, ALL ARE READY IN THE EAST."

From Promontory Point: "ALL READY NOW; THE SPIKE WILL SOON BE DRIVEN. THE SIGNAL WILL BE THREE DOTS FOR THE COMMENCEMENT OF THE BLOWS."

For a moment the instrument was silent, and then the hammer of the magnet tapped the bell, ONE, TWO, THREE, the signal. Another pause of a few seconds, and the lightning came flashing eastward, 2,400 miles to Washington; and the blows of the hammer on the spike were repeated instantly in telegraphic accents upon the bell of the Capitol. At 2:47 P. M., Promontory Point gave the signal, "DONE;" and the great American Continent was successfully spanned. Immediately thereafter, flashed over the line, the following official announcement to the Associated Press:

Promontory Summit, Utah, May 10: THE LAST RAIL IS LAID! THE LAST SPIKE IS DRIVEN! THE PACIFIC RAILROAD IS COMPLETED! The point of junction is 1,086 miles west of the Missouri River, and 690 miles east of Sacramento City.

LELAND STANFORD, Central Pacific Railroad.

T. C. DURANT, SIDNEY DILLON, JOHN DUFF,

Union Pacific Railroad.

Such were the telegraphic incidents that attended the completion of the greatest work of the age—but during these few expectant moments, the scene itself at Promontory Point, was very impressive.

After the rival engines had moved up toward each other, a call was made for the people to stand back, in order that all might have a

chance to see. Prayer was offered by Rev. Dr. Todd of Massachusetts. Brief remarks were then made by General Dodge and Governor Stanford. Three cheers were given for the Government of the UNITED STATES, for the Railroad, for the Presidents, for the Star Spangled Banner, for the laborers, and for those respectively, who furnished the means. Four spikes were then furnished—two gold and two silver, by Montana, Idaho, California and Nevada. They were each about seven inches long, and a little larger than the iron spike.

Dr. Harkness, of Sacramento, in presenting to Governor Stanford a spike of pure gold, delivered a short and appropriate speech.

The Hon. F. A. Tuttle, of Nevada, presented Dr. Durant with a spike of silver, saying: "TO THE IRON OF THE EAST, AND THE GOLD OF THE WEST, NEVADA ADDS HER LINK OF SILVER TO SPAN THE CONTINENT AND WELD THE OCEANS."

Governor Spofford, presenting another spike, said: "RIBBED IN IRON, CLAD IN SILVER, AND CROWNED WITH GOLD, ARIZONA PRESENTS HER OFFERING TO THE ENTERPRISE THAT HAS BANDED THE CONTINENT AND WELDED THE OCEANS."

Dr. Durant stood on the north side of the tie, and Governor Stanford on the south side. At a given signal, these gentlemen struck the spikes, and at the same instant the electric spark was sent through the wires, east and west. The two locomotives moved up until they touched each other, and a bottle of wine was poured, as a libation on the last rail.

A number of ladies graced the ceremonies with their presence, and at 1 P. M., under an almost cloudless sky, and in the presence of about eleven hundred people, the greatest railroad on earth was completed.

A sumptuous repast was given to all the guests and railroad officers, and toward evening the trains each moved away and darkness fell upon the scene of joy and triumph.

Immediately after the ceremonies, the laurel tie was removed for preservation, and in its place an ordinary one substituted. Scarcely had it been put in its place, before a grand advance was made upon it by the curiosity seekers and relic hunters and divided into numberless mementoes, and as fast as each tie was demolished, and a new one substituted, this too, shared the same fate, and probably within the first six months, there were many new ties used. It is said that even one of the rails did not escape the grand battery of knife and hack, and the original had soon to be removed to give place to another.

A curious incident, connected with the laying of the last rails, has been little noticed hitherto. Two lengths of rails, 56 feet, had been omitted. The Union Pacific people brought up their pair of rails, and the work of placing them was done by Europeans. The Central Pacific people then laid their pair of rails, the labor being performed by Mongolians. The foremen, in both cases, were Americans. Here, near the center of the great American Continent, were representatives of Asia, Europe, and America, America directing and controlling.

Copyright applied for May, 1919 Union Pacific Railroad





